Occupational safety in multicultural teams and organizations: A research agenda

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ABSTRACT

Safety is an important issue in the workplace, in particular at the lower end of the labor market where the workforce often consists of people with different cultural backgrounds. Studies have underlined the potential threats to occupational safety of this workforce. Surprisingly, however, very little research has been conducted on national culture and occupational safety. In this paper, we examine how national culture may play a role in important antecedents of safety behavior that have identified in the meta-analysis of Christian et al. (2009). We discuss safety knowledge, safety motivation, and safety climate. Based on this analysis, we make a number of suggestions for future research.

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1. Introduction

In the last years, the labor market has rapidly changed. Flexibilization and globalization have led to more self-employed workers, workers with flexible contracts, and, in particular, workers that enter the workforce in countries different from their own (European Agency for Safety and Health at Work, 2009; Starren et al., 2009). Especially at the lower end of the labor market, where workers are more frequently employed in unsafe working environments than workers in high-skilled jobs (Venema et al., 2009), these changes may have an impact on occupational safety. For instance, in a Dutch study among approximately 25,000 workers, Van den Bossche et al. (2006) show that non-Western migrants are significantly more involved in an accident with physical or mental injury. Moreover, migrant workers have less access to personal protective equipment than native workers. Finally, migrants in low-skilled jobs often have less job opportunities, which makes it difficult for them to quit a job with low occupational safety. This finding is not limited to the Dutch context. In fact, the European Foundation for the Improvement of Living and Working Conditions (2007) has published several country reports on migrant workers (e.g., concerning Austria, Italy, and Spain), underlining that they are more exposed to risky situations than local workers.

Why are migrant workers disproportionately more often affected by safety risks at work than local workers? Answers can be found in various directions: migrants' characteristics and work characteristics. Van Hooff et al. (2009) conclude that the relatively high safety risks of migrants can be explained by the background of the migrants on the one hand (e.g., language comprehension, knowledge and understanding of local habits and risk perception), and their working environment on the other hand (temporary work, unskilled and risky work). When it comes to migrants' characteristics, different characteristics are mentioned, such as obedience (e.g., more reluctant to address safety issues), eagerness to earn money quickly, risk perception (Guldenmund et al., 2010), language problems, understanding the importance of obeying safety regulations (De Vries et al., 2007), and unfamiliarity with local standards (Van Hooff et al., 2009).

Companies seem to realize that a workforce with different cultural backgrounds can lead to difficulties, but Bukman et al. (2010) conclude that these backgrounds are hardly considered when examining occupational safety policies (cf. Vickers et al., 2003). In their study on best practices, they found that only a few companies that work with migrants had specific safety measures, and that almost all measures were focused on language issues.

Whereas it is important to consider safety issues in the context of different cultural backgrounds, safety research has largely neglected this context: "constructs such as national culture [...] are given little attention in the safety literature (Burke et al., 2008, p. 134). Although national culture has been put more prominently on the safety research agenda in the last years (e.g., Bust et al., 2008; Manzey and Marold, 2009; Mearns and Yule, 2009), there is not yet a framework that may guide our current understanding of national culture and occupational safety, and that may identify promising areas for research that advance the field. In this paper, our aim is to present such a framework and a research agenda (Section 4). We base our framework on the integrative model of workplace safety of Christian et al. (2009). As this model does not account for national culture as a potential factor, we systematically analyze where it may play a role (Section 3). We first clarify

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our approach to national culture and multicultural teams (Section 2.1), and present the integrative model of workplace safety (Section 2.2).

2. Theoretical background

2.1. National culture and multicultural teams

National culture is a complex phenomenon because it is related to a host of other factors, such as a nation's economy, language, religion, and politics. A definition of national culture that has been widely acknowledged is the "collective programming of the mind that distinguishes the members of one group or category of people from another" (Hofstede, 2001, p. 9). This means that people with a given nationality share specific characteristics that are 'programmed' during the lifespan. Different tools have been developed in order to characterize national cultures. Fiske et al. (1998) provide an overview of such tools, of which the dimensional approach has been the most prominent. In this approach, cultures are classified according to differences and similarities in the importance of values that guide people's attitudes and behavior.

Different frameworks of dimensions have been proposed (e.g., Trompenaars, 1993; Schwartz, 1994; for an overview, see Soares et al., 2007), of which the cultural dimensions of Hofstede (2001) are probably the most familiar. In this study, we focus on Hofstede's model for analyzing national culture. Hofstede's (2001) distinguishes between five value dimensions: individualism–collectivism (how individuals relate to groups), uncertainty avoidance (the degree to which certainty is tolerated), power distance (how power inequality is accepted), masculinity–femininity (how gender roles are distributed), and long-term versus short-term orientation (how these term orientations are valued). Each dimension hosts a number of different values, and each national culture has specific value hierarchies ranging from values that they are considered relatively unimportant to values that are considered relatively important.

Value dimensions can be used as a framework to analyze national cultures' differences and similarities in attitudes and behavior of individuals. Central to the framework of value dimensions is that values are at the core of attitudes and behavior. For safety attitudes and behavior, relevant values are those that belong to the dimensions of uncertainty avoidance, and power distance (cf. Mearns and Yule, 2009; Schubert and Dijkstra, 2009).

In this paper, we do not specifically focus on the comparison between national cultures. The interest is more on organizations or – on a smaller scale – work teams, in which team members have different cultural backgrounds. For these multicultural teams, it is important to understand which role variation in cultural background plays with respect to occupational safety.

2.2. The integrative model of occupational safety

Christian et al. (2009) have reviewed the empirical research literature on occupational safety. On the basis of a meta-analysis of 90 studies, they were able to test a path model of potential antecedents of safety outcomes. Together, these 90 studies have examined a large number of factors that may affect occupational safety, but not all of these factors were found to be significant determinants in the meta-analysis. Fig. 1 shows the model that is the result of the statistical analyses. The numbers range between −1 and 1, and indicate the strength that a predictor (e.g., safety climate) has on another variable (e.g., safety knowledge). Positive numbers express positive relationships (e.g., more safety knowledge predicts safety performance), and negative numbers express negative

relationships (e.g., better safety performance predicts less accidents and injuries).

This model shows that the number of accidents and injuries on the right-hand side of Fig. 1 can be predicted by safety performance (safety compliance and safety participation): in other words, better safety performance (e.g. following procedures) predicts a lower number of accidents and injuries. Safety performance itself was predicted by workers' knowledge of safe behavior and by their motivation to behave accordingly. It should be noted that motivation plays a direct role, and an indirect role through safety knowledge. On the left-hand side of the model, Christian et al. (2009) introduced situation-related factors (safety climate), and person-related factors (general personality characteristics). When it comes to workers' personality, only their conscientiousness (a combination of achievement and responsibility) plays a role; it predicts workers' motivation. Situation-related factors were found to be more important distal variables than those related to workers' personality. In fact, safety climate predicts both safety knowledge and safety motivation.

In the model of Christian et al. (2009), national culture was not included – simply because studies on national culture and occupational safety were not retrieved in their literature review. However, if national culture affects people's values, attitudes, and behavior, it follows that – potentially – national culture will also affect people's safety knowledge and motivation. Additionally, it can be expected that a work team in which a diversity of national cultures exist, safety climate will be affected. In the remainder of the paper, we therefore examine if and how national culture may affect safety knowledge (Section 3.1), safety motivation (Section 3.2), and safety climate (Section 3.3).

In some cases, our examination draws on safety science research, but in a number of cases research and findings result from related disciplines. For safety knowledge, we examine how risk perception may differ among national cultures, and how communication and training may change workers' risk perception to the accurate level. For safety motivation, we analyze how national culture's important values on risk may play a role in safety motivation. Lastly, for safety climate, we examine how it is affected by diversity in national cultures within the work team. We will outline how national culture's important values inhibit a shared vision on safety in the team, and how leadership and intercultural effectiveness may positively affect safety climate.

3. National culture and safety behavior

3.1. Safety knowledge

Safety performance is strongly predicted by the knowledge that workers have of risky behavior and procedures to prevent such behavior (Christian et al., 2009). Workers need to be aware of risky behavior. An underlying premise seems to be that – if people know what the actual risks are and which procedures help to perform safely – their knowledge about safety increases. We argue that people's knowledge is partly dependent on risk perception, namely the degree to which behavior indicated as risky is also perceived to be risky by the individual worker. Risk perception can be seen as an individual assessment of the likelihood of an undesired consequence (cf. Rohrmann and Renn, 2000). Risk perception should be distinguished from attitude towards risk (Rohrmann, 2000). The attitude towards risk is related to a person's level of sensation seeking, such as in the domains of drug and alcohol abuse, and unprotected sex (see Zuckerman, 1979).

Whereas it is difficult to alter a person' level of sensation seeking, people's perception of risks can be changed. Moreover, research shows that national culture may affect risk perception.